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| 10/066,098 | 01/31/2002 | Fabio Casati | 10010118-1 | 6026 |

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EXAMINER

NASH, LASHANYA RENEE

ART UNIT PAPER NUMBER

2153

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|-------------------------------|--|
| Office Action Summary | Application No. 10/066,098 | Applicant(s) CASATI ET AL. | |
| | Examiner LaShanya R. Nash | Art Unit 2153 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-20 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acharya et al. (US Patent Application Publication 2003/0140119), in view of Mansour-Awad (US Patent 6,862,488), hereinafter referred to as Acharya and Mansour-Awad respectively.

In reference to claim 1, Acharya discloses a method for dynamic service discovery wherein conversation logic (i.e. protocol) for transmitting a workflow is selected dynamically (abstract). Acharya discloses:

- A method (Figures 5-6) for selecting a conversation logic (i.e. protocol) at run-time for a workflow definition that includes at least one node with no hard-coded conversation logic, (paragraphs [0017]-[0018]) the method comprising the steps of:

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- When executing the node with no hard-coded conversation logic, dynamically discovering a service associated with the node with no hard-coded conversation logic (i.e. dynamic service discovery; paragraphs [0028]-[0036]);
- Determining a corresponding conversation logic based the discovered service, (paragraph [0037]); and
- Dynamically plugging in the determined conversation logic into the node at run time (i.e. formatting response; paragraphs [0031]-[0034]).

Although Acharya discloses substantial features of the claimed invention, the reference fails to expressly show maintaining a conversation logic repository that includes at least one conversation logic that is external to the workflow definition. Nonetheless, maintaining conversation logic repositories were well known in the art at the time of invention, as further evidenced by Mansour-Awad. Therefore, it would have been obvious for one of ordinary skill in the art to accordingly modify the aforementioned method as disclosed by Acharya.

In an analogous art, Mansour-Awad discloses a method for automated validation processing and workflow management (abstract). Mansour-Awad further discloses maintaining a conversation logic repository that includes at least one conversation logic that is external to the workflow definition (i.e. protocol database; Figure 6-item 430; column 8, line 56 to column 9, line 35; column 11, lines 9-37). These modifications to the method as discloses by Acharya would have been obvious because one of ordinary skill in the art would have been motivated to automate many manual tasks (i.e. selecting

conversation logic) during workflow management, thereby increasing efficiency (Mansour-Awad column 3, lines 1-5).

In reference to claim 3, Acharya discloses a method for dynamic service discovery wherein conversation logic (i.e. protocol) for transmitting a workflow is selected dynamically (abstract). Acharya discloses:

- A method (Figures 5-6) for selecting a conversation logic (i.e. protocol) at run-time (paragraphs [0017]-[0018]), comprising the steps of:
- At run-time, sending a service selection query (i.e. service query) to an electronic services platform or other service broker (i.e. service discovery proxy), (paragraphs [0028]-[0033]);
- Receiving a returned service identifier or reference (i.e. response; paragraphs [0028]-[0033]); and
- Selecting a conversation logic from the repository of conversation logics based on a returned service identifier, (paragraphs [0037]-[0038]).

Although Acharya discloses substantial features of the claimed inventions, the references fail to expressly show maintaining a conversation logic repository that includes at least one conversation logic that is external to the workflow definition. Nonetheless, maintaining conversation logic repositories were well known in the art at the time of invention, as further evidenced by Mansour-Awad. Therefore, it would have been obvious for one of ordinary skill in the art to accordingly modify the aforementioned method as disclosed by Acharya.

In an analogous art, Mansour-Awad discloses a method for automated validation processing and workflow management (abstract). Mansour-Awad further discloses maintaining a conversation logic repository that includes at least one conversation logic that is external to the workflow definition (i.e. protocol database; Figure 6-item 430; column 8, line 56 to column 9, line 35; column 11, lines 9-37). These modifications to the method as discloses by Acharya would have been obvious because one of ordinary skill in the art would have been motivated to automate many manual tasks (i.e. selecting conversation logic) during workflow management, thereby increasing efficiency (Mansour-Awad column 3, lines 1-5).

In reference to claim 11, Acharya discloses a system for dynamic service discovery wherein conversation logic (i.e. protocol) for transmitting a workflow is selected dynamically (abstract). Acharya discloses:

- A system (Figure 7) for dynamically selecting a conversation logic at run-time for a workflow definition that includes at least one node with no hard-coded conversation logic (paragraphs [0017]-[0018]), comprising:
- A workflow engine for processing workflow definitions (i.e. processing module; Figure 7-item 730; paragraphs [0028]-[0033]); and
- A dynamic conversation logic selection mechanism (i.e. service detector module; Figure 7-item 720) for receiving a service identifier that is associated with a service at run-time and based thereon for selecting a conversation logic for interacting with the service at run-time, (paragraphs [0034]-[0038]).

Although Acharya discloses substantial features of the claimed invention, the reference fails to expressly show maintaining a conversation logic repository that includes at least one conversation logic that is external to the workflow definition. Nonetheless, maintaining conversation logic repositories were well known in the art at the time of invention, as further evidenced by Mansour-Awad. Therefore, it would have been obvious for one of ordinary skill in the art to accordingly modify the aforementioned method as disclosed by Acharya.

In an analogous art, Mansour-Awad discloses a method for automated validation processing and workflow management (abstract). Mansour-Awad further discloses maintaining a conversation logic repository that includes at least one conversation logic that is external to the workflow definition (i.e. protocol database; Figure 6-item 430; column 8, line 56 to column 9, line 35; column 11, lines 9-37). These modifications to the method as disclosed by Acharya would have been obvious because one of ordinary skill in the art would have been motivated to automate many manual tasks (i.e. selecting conversation logic) during workflow management, thereby increasing efficiency (Mansour-Awad column 3, lines 1-5).

In reference to claim 2, Acharya shows the method wherein the step of when executing the node with no hard-coded conversation logic, dynamically discovering a service associated with the node with no hard-coded conversation logic includes the steps of: determining a service based on a service selection rule (i.e. service discovery based on registry; paragraphs [0028]-[0030]); receiving a service reference (i.e. response;

paragraphs [0032]-[0034]); and wherein the step of determining a corresponding conversation logic in the conversation logic repository based the discovered service further includes the steps of using the service reference to determine a conversation logic for the determined service, (paragraphs [0035]-0039)).

In reference to claims 4 and 15, Mansour-Awad shows the wherein each conversation logic is associated with at least one service, (column 11, lines 9-37)

In reference to claims 5 and 16, Mansour-Awad shows the method wherein the conversation logic is for the exclusive use of a given composite service, (column 11, lines 9-37)

In reference to claims 6 and 17, Mansour-Awad shows the method wherein the conversation logics is shared by two or more composite services.

In reference to claims 7 and 18, Mansour-Awad shows the method wherein the conversation logic is not defined in the workflow at process definition time (i.e. workflow repository and protocol repository, columns 11-12).

In reference to claim 8, Acharya shows the method further comprising the step of:

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interacting with a dynamic service discovery mechanism (i.e. service detector module; Figure 7-item 720); and dynamically discovering services, (paragraphs [0035]-[0038]).

In reference to claims 9 and 19, Acharya shows the method further comprising the step of: performing late binding of the conversation logic at run-time, (i.e. dynamic; paragraphs [0031]-[0034]).

In reference to claims 10 and 20, Mansour-Awad shows the method wherein the repository is one of a single central database and multiple distributed files, (column 11, lines 9-37; Figure 6-item 430).

In reference to claim 12, Acharya shows the system further comprising: d) a source for services; wherein the source discovers services based on a service selection rule; wherein the dynamic conversation logic selection mechanism (DCLSM) selects appropriate conversation logic from the conversation logic repository based on a discovered service, (paragraphs [0028]-[0037]).

In reference to claim 13, Acharya shows the system wherein the source for services is one of a service broker (i.e. service discovery proxy), a service marketplace, an e-services platform, a company, and an entity, (paragraphs [0028]-[0033]).

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In reference to claim 14, Mansour-Awad shows the system wherein only services that have a conversation protocol compatible with one of the conversation logics available in the repository are selected, (column 11, lines 9-37).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShanya R Nash whose telephone number is (571) 272-3957. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LaShanya Nash
Art Unit, 2153
December 12, 2005



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